

# Recovery Plan Action Status

Plan Name: June Sucker

Plan Status: Final

Plan Date: 25-Jun-99

Lead Agency: USFWS

Lead Office: Utah Ecological Services Field Office

(501)

975-3330 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
June sucker (Chasmistes liorus)	1	1.1.1.1	Determine a genetic baseline for June sucker using historic samples	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	Utah Division of Wildlife Resources	Research: Genetics	Contract	historic samples not available
June sucker (Chasmistes liorus)	1	1.1.1.2	Determine degree of hybridization with Utah sucker	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources	Research: Genetics	Contract	Rangewide molecular structuring in the Utah sucker (Catostomus ardens)  K. E. Mock*, R. P. Evans?, M. Crawford?, B. L. Cardall*, S. U. Janecke** and M. P. Miller  Journal of Molecular Ecology
June sucker (Chasmistes liorus)	1	1.1.1.3	Determine genetic variability within existing populations and year-classes	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources	Research: Genetics	Contract	
June sucker (Chasmistes liorus)	1	1.1.1.4	Determine genetic integrity and variability of existing refugia populations	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources	Research: Genetics	Contract	
June sucker (Chasmistes liorus)	1	1.1.2	Develop protocols to protect optimal genetic integrity of captive stock	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources	Research: Genetics	Contract	
June sucker (Chasmistes liorus)	2	1.1.3	Synthesize existing information to maximize genetic diversity in a management plan	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources	Research: Genetics	Contract	

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June sucker (Chasmistes liorus)	1	1.2.1.1	Identify and select potential primary refuge site	Complete	Prior to FY 1995	Prior to FY 1995	U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Research	Species Expert	Red Butte reservoir is the primary refuge site.
June sucker (Chasmistes liorus)	1	1.2.1.2	Secure selected primary refuge site	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission, Central Utah Project Completion Action Office	Acquisition	Internal Administrative	Red Butte dam was repaired and habitat enhanced for June sucker funding \$6 million
June sucker (Chasmistes liorus)	1	1.2.1.3	Introduce June sucker into selected primary refuge site	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Research	Internal Technical Assistance	3200 June sucker were stocked in Red Butte reservoir 1992, were transferred to Utah Lake in 2005 for dam repair. Reintroduction of June sucker will be completed by fall 2006.
June sucker (Chasmistes liorus)	1	1.2.1.4	Monitor and maintain the refuge population in selected primary refuge site	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Research: General	Labor type not yet selected	Costs of maintaining the dam will continue until the June sucker is recovered
June sucker (Chasmistes liorus)	2	1.2.2.1	Identify and select secondary refuge sites, with at least one located within the historic drainage of Utah Lake	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Central Utah Water Conservancy District, Central Utah Project Completion Action Office	Acquisition: Easement	Internal Technical Assistance	Powells slough, Mona Reservoir and Johnsons pond have been identified, negotiations are in progress

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June sucker (Chasmistes liorus)	2	1.2.2.2	Secure secondary refuge sites	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Central Utah Water Conservancy District, Central Utah Project Completion Action Office	Acquisition	Internal Technical Assistance	Camp Creek Res and Ensign ponds
June sucker (Chasmistes liorus)	2	1.2.2.3	Introduce June sucker to secondary refuge sites	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Management: Reintroduction	Internal Technical Assistance	Camp Creek and Ensign ponds
June sucker (Chasmistes liorus)	2	1.2.2.4	Monitor and maintain June sucker introduced into secondary refuge sites	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources	Work type not yet selected	Labor type not yet selected	All occupied sites are monitored by the UDWR
June sucker (Chasmistes liorus)	2	2.1.1	Refine and implement protocols for monitoring YOY production in Utah Lake tributaries	Ongoing Current	Prior to FY 1995		Utah Division of Wildlife Resources	Research: Management Techniques	Internal Technical Assistance	continually being refine
June sucker (Chasmistes liorus)	2	2.1.2	Refine and implement protocols for monitoring the adult spawning population in Utah Lake tributaries	Ongoing Current	Prior to FY 1995		Utah Division of Wildlife Resources	Management: Habitat Maintenance and Manipulation	Contract	
June sucker (Chasmistes liorus)	3	2.3.1	Develop methods and implement a plan for monitoring June sucker in Utah Lake	Ongoing Current	Prior to FY 1995		Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Research: Management Techniques	Contract	
June sucker (Chasmistes liorus)	1	3.1.1	Refine flow requirements including timing, magnitude, and duration to maintain and enhance June sucker spawning and recruitment in the Provo River	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Central Utah Water Conservancy District, Central Utah Project Completion Action Office	Research: Management Techniques	Internal Technical Assistance	protocol in place refining continually

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June sucker (Chasmistes liorus)	1	3.1.2	Identify flexibility in current flow operations in the Provo River and determine strategies and mechanisms for acquiring June sucker spawning and nursery flows	Ongoing Current	Prior to FY 1995		U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, Provo River Water Users Association, Central Utah Water Conservancy District, Central Utah Project Completion Action Office	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	
June sucker (Chasmistes liorus)	1	3.1.3	Acquire and protect flows in the Provo River	Ongoing Current	Prior to FY 1995		U.S. Geological Survey, Biological Resources Division, Michigan Department of Natural Resources, Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission, Central Utah Project Completion Action Office	Acquisition: General	Internal Technical Assistance	\$15 Million has been authorized by Section 302(a) of CIJPCA, URMCC has acquired about 1100 AF and additional acquisitions are being pursued
June sucker (Chasmistes liorus)	1	3.2.1	Analyze past and present habitat characteristics in the Provo River	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Central Utah Water Conservancy District	Research: Habitat Status	Contract	
June sucker (Chasmistes liorus)	1	3.2.2.1	Provide low velocity habitats in the Provo River to enhance and maintain habitat limiting recruitment	Ongoing Not Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	
June sucker (Chasmistes liorus)	1	3.2.2.2	Provide structural refugia in the Provo River to enhance and maintain habitat limiting recruitment	Not Started			U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	2	3.2.3	Monitor effectiveness of habitat management plan for Provo River	Not Started			Utah Division of Wildlife Resources	Work type not yet selected	Labor type not yet selected	

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June sucker (Chasmistes liorus)	1	3.3.1.1	Investigate Provo River-Utah Lake interactions to determine measures and alternatives necessary to protect June sucker&FRom nonnative impacts	Ongoing Current	FY 1995 - FY 1999		Utah Division of Wildlife Resources	Research: Management Techniques	Internal Technical Assistance	
June sucker (Chasmistes liorus)	1	3.3.1.2	Investigate feasibility of mechanically controlling nonnative fish predators within the Provo River	Discontinued	FY 1995 - FY 1999		Utah Division of Wildlife Resources	Research: Management Techniques	Contract	
June sucker (Chasmistes liorus)	1	3.3.2.1	Provide flowsthat minimize nonnative use of the Provo River	Not Started			U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, Provo River Water Users Association, Central Utah Water Conservancy District, Utah Reclamation Mitigation and Conservation Commission, Central Utah Project Completion Action Office	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	1	3.3.2.2	If determined feasible, mechanically control nonnative fish predators in the Provo River	Discontinued	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	2	3.3.3	Monitor effectiveness of nonnative control methods in the Provo River	Complete	FY 1995 - FY 1999	FY 2000 - FY 2004	Utah Division of Wildlife Resources	Management: Predator and Competitor Control	Internal Field Assistance	
June sucker (Chasmistes liorus)	1	3.4.1.1	Investigate and implement alternatives for increasing habitat complexity in Utah Lake	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Research: Habitat Status	Contract	

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June sucker (Chasmistes liorus)	2	3.4.2.1	Evaluate Utah Lake water elevation instability impacts on aquatic vegetation	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Research: Habitat Status	Contract	
June sucker (Chasmistes liorus)	2	3.4.2.2	Evaluate relationship between Utah Lake water elevations, riverine flows and aquatic vegetation	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources, Central Utah Water Conservancy District, Utah Reclamation Mitigation and Conservation Commission	Research: Habitat Status	Internal Technical Assistance	
June sucker (Chasmistes liorus)	2	3.4.2.3	Develop and implement plan to manage Utah Lake water elevations to enhance aquatic vegetation	Ongoing Current	FY 2005		U.S. Geological Survey, Biological Resources Division, Utah Division of Wildlife Resources, Provo River Water Users Association, Central Utah Water Conservancy District	Management: Habitat Maintenance and Manipulation	Internal Technical Assistance	
June sucker (Chasmistes liorus)	3	3.4.2.4	Monitor and evaluate effectiveness of plan to manage Utah Lake water elevations to enhance aquatic vegetation	Not Started			U.S. Geological Survey, Biological Resources Division, Utah Division of Wildlife Resources, Central Utah Water Conservancy District, Utah Reclamation Mitigation and Conservation Commission	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	3	3.5.1.1	Develop and implement a plan to improve Utah Lake water quality	Not Started			Michigan Department of Natural Resources	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	3	3.5.1.2	Monitor impacts of Utah Lake water quality changes on June sucker	Ongoing Current	FY 2000 - FY 2004		Michigan Department of Natural Resources	Research: Environmental Contaminants	Contract	
June sucker (Chasmistes liorus)	1	3.6.1.1	Evaluate feasibility of Utah Lake nonnative fish eradication	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Research	Contract	

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June sucker (Chasmistes liorus)	1	3.6.1.2	Implement appropriate control techniques or removal of nonnative fish in Utah Lake	Ongoing Current	FY 2007		Utah Division of Wildlife Resources	Work type not yet selected	Contract	
June sucker (Chasmistes liorus)	2	3.6.2	Investigate other impacts of nonnatives in Utah Lake on June sucker	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources	Research: Competition	Contract	
June sucker (Chasmistes liorus)	1	3.6.3.1	Evaluate feasibility of alternative forage in Utah Lake as a potential buffer for predation effects	Obsolete			Utah Division of Wildlife Resources	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	2	3.6.4	Monitor and evaluate effectiveness of nonnative control strategies in Utah Lake	Ongoing Current	FY 2006		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Management: Predator and Competitor Control	Internal Technical Assistance	
June sucker (Chasmistes liorus)	2	3.7.1	Determine nutritional needs of June sucker	Ongoing Current	FY 1995 - FY 1999		Utah Division of Wildlife Resources	Research: Propagation	Internal Technical Assistance	Feed study continues at Bozeman Technology Center
June sucker (Chasmistes liorus)	2	3.7.2	Investigate food availability and abundance in Utah Lake	Complete	Prior to FY 1995	FY 1995 - FY 1999	Utah Division of Wildlife Resources	Research: Habitat Status	Internal Technical Assistance	
June sucker (Chasmistes liorus)	1	4.1.1.1	Identify and select potential site for hatching and rearing facility to propagate June sucker for introduction into Utah Lake	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Research: Propagation	Internal Technical Assistance	
June sucker (Chasmistes liorus)	1	4.1.1.2	Procure and secure preferred hatchery and rearing facility site	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Acquisition	Internal Technical Assistance	

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June sucker (Chasmistes liorus)	1	4.1.1.3	Design and construct hatchery and rearing facility	Complete	FY 2000 - FY 2004	FY 2006	U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Research: Other Information	Contract	
June sucker (Chasmistes liorus)	1	4.1.1.4	Secure brood stock at hatchery and rearing facility	Ongoing Current	Prior to FY 1995		Utah Division of Wildlife Resources	Management: Reintroduction	Internal Technical Assistance	
June sucker (Chasmistes liorus)	2	4.1.2.1	Develop production goals and augmentation plan for captive brood stock	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Management: Reintroduction	Internal Technical Assistance	
June sucker (Chasmistes liorus)	1	4.1.3	Propagate and stock June sucker into Utah Lake	Ongoing Current	FY 2000 - FY 2004		Utah Division of Wildlife Resources, Utah Reclamation Mitigation and Conservation Commission	Research: Propagation	Internal Technical Assistance	
June sucker (Chasmistes liorus)	3	4.2.1.1	Analyze past and present habitat characteristics and complexity of other tributaries to Utah Lake for potential to establish a spawning run	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	Utah Division of Wildlife Resources, Central Utah Water Conservancy District	Research: Habitat Requirements	Contract	
June sucker (Chasmistes liorus)	3	4.2.1.2	Determine barriers to establishing a spawning stock in other tributaries	Complete	FY 2000 - FY 2004	FY 2000 - FY 2004	U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Central Utah Water Conservancy District, Central Utah Project Completion Action Office	Research: Habitat Status	Contract	



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June sucker (Chasmistes liorus)	3	4.2.1.3	Develop and implement habitat rehabilitation program to improve suitability of other tributaries for spawning stock	Ongoing Current	FY 2000 - FY 2004		U.S. Geological Survey, Biological Resources Division, U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Central Utah Water Conservancy District, Central Utah Project Completion Action Office	Work type not yet selected	Labor type not yet selected	Purchased land at Hobble Creek. Construction to realign the creek and provide nursery habitat began 09/01/2008
June sucker (Chasmistes liorus)	3	4.2.2	Develop guidelines for introduction of June sucker into other tributaries	Not Started			U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	3	4.2.3	Establish spawning stocks in other tributaries	Not Started			U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	3	4.2.4	Monitor and evaluate effectiveness of establishing other tributary spawning stocks	Not Started			Academic institutions	Work type not yet selected	Labor type not yet selected	
June sucker (Chasmistes liorus)	3	5.0	Develop and conduct interpretation and education highlighting the value of the Utah Lake ecosystem and the June sucker and associated recovery efforts.	Ongoing Current	FY 2000 - FY 2004		Academic institutions	Other: Administration	Contract	
June sucker (Chasmistes liorus)	1	6.1	Maintain presence of law enforcement officials and biologists in the Provo River to protect June sucker during the spawning run	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources	Management	Internal Field Assistance	
June sucker (Chasmistes liorus)	3	7.1	Conduct an analysis to refine quantified objectives for June sucker recovery including a definition of a self-sustaining June sucker population	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Utah Division of Wildlife Resources, Central Utah Water Conservancy District	Research	Species Expert	